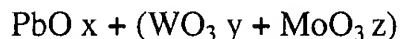


ABSTRACT OF THE DISCLOSURE

A PZT dielectric ceramic material is sintered at a desired low temperature to prevent deterioration of the performance of the base material. An auxiliary oxide is used that is made by adding the oxide of at least one of tungsten and molybdenum to lead oxide in the following proportions:



where $x + y + z = 1$, $0.005 < y + z < 0.4$ and $y, z \geq 0.05$ mol % to 20 mol % of this auxiliary oxide is added to a mixture of a stock material of dielectric ceramic material or its calcination having a composition of ABO_3 type dielectric ceramic material where 0.9 molar ratio or more lead is included in site A assuming the proportion of site B is 1, and the material is mixed, formed and sintered. The content of tungsten and molybdenum combined is less than 0.098 mole in proportion to 1 mole of lead and the density of the dielectric ceramic material after sintering is 7.5 g/cm^3 or larger. The auxiliary oxide is dispersed in the calcined powder to form a liquid phase at a desired temperature, to accelerate the sintering, thus making it possible to sinter at a lower temperature.